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ABSTRACT

The Youth Risk Behavior Survey (YRBS) Middle School Questionnaire, produced by the National Centers for Disease Control and Prevention, was administered for the first time in North Carolina in 1995. The survey monitored high-priority health-risk behaviors, including: (1) weapons and violence; (2) suicide-related behaviors; (3) vehicle safety; (4) tobacco, alcohol, and other drug use; and (5) nutrition and physical exercise. A total of 2,227 students from 53 public schools were surveyed. Results within the personal safety category showed that weapon use is predominantly a male activity, with 20 percent carrying weapons to school and 10 percent reporting having been threatened with or injured by weapons at school. Over 25 percent of students had considered suicide and 10 percent had attempted suicide. Forty percent had ridden with someone who had been drinking alcohol, with the percentage increasing by grade. The majority did not wear helmets while riding bicycles. Concerning drug use, findings showed that 53 percent had smoked cigarettes. High smoking rates were found among minorities, males, and older students. Over half had drunk alcohol and 17 percent had used marijuana, with the percentage increasing by grade. Results concerning personal health revealed that about 25 percent consider themselves overweight but 40 percent are dieting, most of whom are females. Over 80 percent reported exercising or playing sports in the previous week in addition to attending physical education classes. Almost 80 percent reported AIDS education at school; 60 percent had discussed AIDS or HIV with parents or other family adults. (Contains 25 references.) (KDFB)

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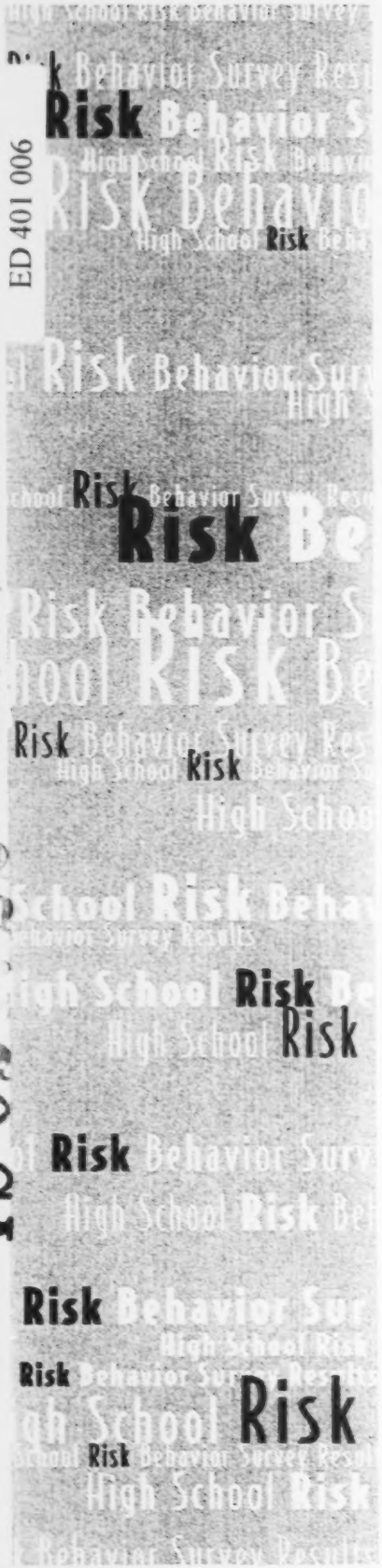

Middle School Risk Behavior 1995 Survey Results

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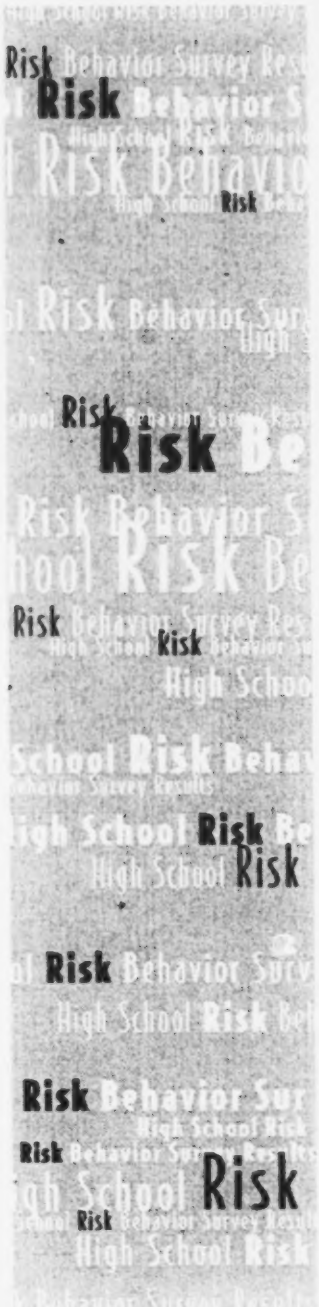

Middle School Risk Behavior 1995 Survey Results

September, 1996

Evaluation Section
Division of Accountability Services
Instructional and Accountability Services

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ACKNOWLEDGMENTS

Conducting a statewide survey and analyzing results takes considerable work by many people. The Youth Risk Behavior Survey (YRBS) is the responsibility of the Evaluation Section in the Division of Accountability Services, in coordination with the Division of Instructional Services. The 1995 YRBS was developed during the 1994-95 school year with the help of staff in the Evaluation, Instructional Services, and Student Services areas of the Department of Public Instruction under the leadership of Dr. Vicky Mikow. Several items were added at the request of the Department of Human Resources to assist with studies they were conducting. The survey administration was carried out under the direction of Bobbye Draughon in the Spring of 1995.

Special appreciation is extended to Tom Overton, Evaluation Consultant, who spent many hours pouring over the results and doing the data analysis and report writing. Angela Pope-Lett, Statistical Analyst, performed the detailed and laborious work on the many charts and graphs, trying to present them in reader-friendly ways. Dr. Carolyn Cobb, Chief of the Evaluation Section, was responsible for overseeing data analysis, editing and final report development. In addition, other Evaluation Section staff provided timely feedback and assistance, and staff in the Division of Communication Services were helpful in formatting and production of the report.

HIGHLIGHTS

The 1995 Youth Risk Behavior Survey (YRBS) Middle School Questionnaire is produced by the National Centers for Disease Control and Prevention and is intended to assess risk behaviors among middle school students. This is the first such survey conducted with North Carolina middle school students. The results come from the students' responses as their self-reports regarding behaviors or experiences. Some highlights of the findings are presented here, grouped in three sections.

Personal Safety

- 66% of the middle school students reported having been in physical fights, over half of the female students and more than four out of five male students.
- 3% of the students admitted to having carried guns at school, and 14% said they had carried some other kinds of weapons at school.
- 27% of the students had considered committing suicide, and 11% had attempted suicide.
- 11% said they rarely or never wore seat belts when riding in a car.
- 40% claimed to have ridden in a vehicle driven by someone who had been drinking alcohol.

Alcohol, Tobacco, and Other Drugs

- 59% reported having drunk alcohol.
- 53% of the students said they had smoked cigarettes.
- 19% said they had sniffed glue or spray cans.
- 17% claimed to have smoked marijuana.
- 3% indicated that they had used steroids.
- 3% admitted cocaine use.

Personal Health

- 24% of the students considered themselves overweight.
- 40% reported attempts to lose weight.
- 84% said they were enrolled in a physical education class.
- 83% indicated that they exercised or played sports three or more days a week.
- 79% said they had been taught in school about AIDS.
- 61% said they had discussed AIDS with an adult family member.

SUMMARY

This survey indicates numerous risk behaviors that endanger North Carolina middle school youth, as well as others. These data are not program specific and should not be used for program evaluation, but they do provide specific indicators of problem areas. By establishing a baseline of indicators that can be tracked over time, the data alert parents, the community, schools and other service agencies of some critical areas of need for middle school youth. By identifying and tracking trends in risk behaviors, we have a better opportunity to help improve the lives and futures of our youth.

Personal Safety

The use of guns and other weapons is predominantly a male activity, although almost one-fourth of female students had carried weapons such as knives and clubs. While the percentages of students carrying weapons on school property dropped considerably, 5 percent of males carried guns at school and one-fifth carried other weapons at school. White males were most likely to carry guns and other weapons generally; but black males were more likely to carry guns to school, and white males were more likely to carry other weapons to school. One-tenth of middle school students reported being threatened with or injured by weapons at school. Male students, especially black male students (14%), were most likely to be threatened or injured.

Suicide-related behaviors are alarming. Over one-fourth of the students had seriously considered suicide, and over ten percent attempted suicide. The likelihood of considering, planning, and attempting suicide increased for students in higher grades. White females were most likely to consider (30%) and to attempt (11%) suicide. Black males were least likely to consider suicide (18%), and black females were least likely to attempt suicide (9%). These percentages are unacceptably high, and they indicate deeply troubling conditions for students, suggesting a critical need for attention.

The period of adolescence contains various potential risks that may result in injury for many youth. Even a relatively high percentage of middle school students (40%) had ridden with someone who had been drinking alcohol. This risk behavior increased with grade level, from a quarter of sixth grade students to half of the eighth grade students. Most students reported wearing seat belts, but 11 percent rarely or never wore them. Males were more likely than females to decline wearing seat belts. The vast majority (76%) of middle school students reported not wearing helmets when riding bicycles, although a smaller percentage of them were not wearing helmets for skateboarding or rollerblading (42%). Students may view bicycles as being less dangerous than other transportation means, and this may be an issue that calls for further attention.

Tobacco, Alcohol, and Other Drugs

Over half of the students (53%) had smoked cigarettes, and almost one-fourth had smoked within the last 30 days. Higher rates of smoking behaviors occurred among minorities, males, and students in higher grades. While females were least likely (45%) to have ever smoked cigarettes, although black females were least likely (13%) to have smoked in the previous 30 days. Students of "Other" ethnic groups were the most likely to have smoked cigarettes, to have smoked before age 11, to have smoked in the previous 30 days, to smoke more than one cigarette per day, and to buy their own cigarettes from a store.

More than half of the students (59%) had drunk alcohol for other than religious reasons. The percentage of students drinking alcohol increased by grade level (from 43% to 70%), so many of the students were at least experimenting with alcohol during their middle school years. One third of all the students reported having their first drink before age 11.

One-sixth (17%) of the students had used marijuana. This behavior increased four-fold from sixth to eighth grade (6% to 25%). More males than females used marijuana, and more black males (27%) than white males (20%) used it. Students of "Other" ethnicities than white or black were most likely (6%) to have used marijuana before age 11.

Although cocaine use was reported by only 3 percent of all the students, the highest use was found for "Other" ethnicities (8%) and for males (4.5%). Crack use was reported by 2 percent of the students, with the highest use by black males (4%).

Three other drug behaviors of concern include sniffing glue, using steroids, and injecting illegal drugs. About one-fifth (19%) of the students reported sniffing glue, more white and "Other" students (22% each) than black students (11%), and mostly seventh and eighth graders (21%-23%) rather than sixth graders (12%). While 3 percent of the students reported using steroids, this was mostly a white male (5%) behavior. Injecting illegal drugs was reported by one percent of the students, mostly students of "Other" ethnicities (2%) and white males (2%).

Personal Health

One-fourth (24%) of the students considered themselves overweight, but 40 percent were trying to lose weight. More females than males expressed concern about weight and were taking actions accordingly. Although some differences were observed among subgroups, the desire to lose weight and use of specific strategies was predominantly a female phenomenon, including both black and white females. Exercising and dieting were the most common weight-loss techniques used, with 59 percent of the students exercising and 35% dieting. Taking diet pills and vomiting or taking laxatives were both reported by 7 percent of the students as behaviors for weight loss or control. Again, mostly female students, especially white females, were engaged in these behaviors.

Some foods are considered healthier than others. When asked about foods eaten the day before, a high percentage of all students (59% to 77%) had eaten various high-fat and high-sugar foods. Although males were somewhat more likely to eat these foods, percentages were high for all gender and racial, and grade level subgroups. On the healthier side, at least half (57%) of all students had eaten vegetables and three-fourths (78%) had eaten fruit or had drunk fruit juice the day before. The most notable subgroup differences were racial differences for vegetables: 61% white, 55% "Other", and 47% black.

Over four-fifths of the students reported exercising or playing sports on three of the previous seven days, as well as attending physical education classes. Over half (56%) of the students played sports in or out of school, primarily males of either race more than females of either race. Black females were least likely (36%) to have played some kind of sports. Many (44%) students participated in other activities such as dance, gymnastics, or swimming, and females were more likely (48%) than males (40%) to do so.

Student were asked about how they were getting information about AIDS and HIV infection. While four out of five (79%) of all students had been taught about AIDS in school, three out of five (61%) had discussed these topics with parents or other family adults. All subgroup percentages were similar for learning about AIDS in school, with the exception of fewer (two-thirds) of sixth graders. Somewhat more females (65%) than males (58%) had talked with family members, and more black students (67%) than whites (59%) or "Other" ethnicities (55%) had done so.

INTRODUCTION:

1995 YOUTH RISK BEHAVIOR SURVEY

The Youth Risk Behavior Survey (YRBS) was developed by the Division of Adolescent and School Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, along with representatives from 71 state and local education departments and 19 other federal agencies. Its purpose was to monitor high-priority health-risk behaviors that contribute to the six leading causes of mortality, morbidity, and social problems among youth and young adults in the United States. Six categories of concern were addressed in surveys of high school students in 1993 and 1995:

- weapons and violent behavior
- suicide-related behaviors
- behaviors likely to results in unintentional injury (vehicle safety)
- tobacco, alcohol, and other drug use behaviors
- sexual behaviors, and
- nutrition and physical exercise behaviors.

In the spring of 1995, a shorter version of the YRBS was introduced for middle school students, grades 6 through 8. In North Carolina, the middle school version, omitting the sexual behaviors portion of the survey, was administered to a randomly selected sample of 2,227 students from 53 public schools. These represent North Carolina's middle school population: 463 schools having a total of 261,309 middle school students. Student participation was voluntary, and privacy and confidentiality were protected in the administration procedures. The school response rate was 74 percent, and the student response rate was 86 percent. The results were weighted when analyzed so as to reflect as nearly as possible the North Carolina middle school population. The distribution of the sample is shown by sex, grade level, and race (Figure 1).

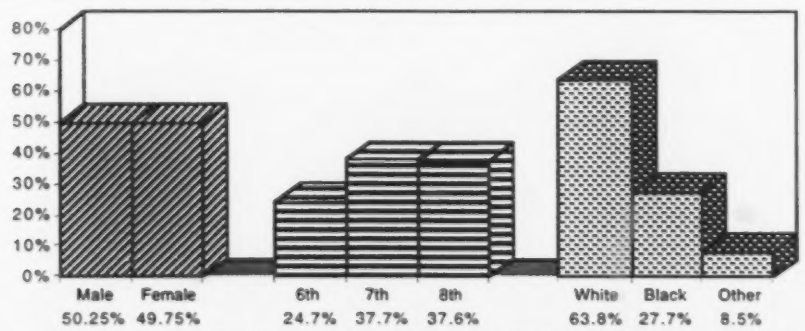

Figure 1. North Carolina Youth Risk Behavior Survey Sample of 6th-8th Grade Students

This report consists of three sections discussing specific information from the survey. The first section, "Personal Safety", concerns behaviors related to weapons and violence, suicide, and safety equipment. The second section is "Tobacco, Alcohol, and Other Drug Use". The third section, "Personal Health", deals with behavior related to nutrition and physical exercise, and AIDS education.

The surveys were analyzed according to students' age, grade level, sex, and race/ethnicity. A note of caution is in order with regard to the "Other" race/ethnicity category. Because this category includes combined responses from Hispanics, Native Americans, and Asian-Americans, generalizations from this variable are inappropriate, as they may not apply equally to all of the ethnicities in the category. The category is aggregated because separately an insufficient number of respondents (fewer than 100) makes the confidence intervals so broad that the data are not useful. Generalization of the "Other" race/ethnicity categorical data risks the danger of incorrect inference about one or more of the ethnicities included therein.

SECTION I: PERSONAL SAFETY

SECTION I: PERSONAL SAFETY

The three leading causes of death among youth aged 15 to 24 years are (in descending order) motor vehicle collisions, homicide, and suicide (National Center for Health Statistics, 1993). The Youth Risk Behavior Survey includes items that address three areas of personal safety: violence-related behavior, including carrying weapons; suicide-related behavior; and use of safety equipment to prevent or reduce collision injuries. A graph displays the results of responses to each question.

Weapons and Violent Behavior

Weapons and violent behaviors may cause injuries and deaths. Nationally, homicide is the second-highest cause of death among young people aged 15-24 (National Center for Health Statistics, 1993). During adolescence, homicide rates increase 15 times, from 0.9 per 100,000 for pre-adolescents to 13.9 per 100,000 for adolescents (O'Carroll & Smith, 1988).

Carrying Guns

Of the North Carolina middle school students responding to this survey, 31 percent reported having ever carried a gun (Figure 2).

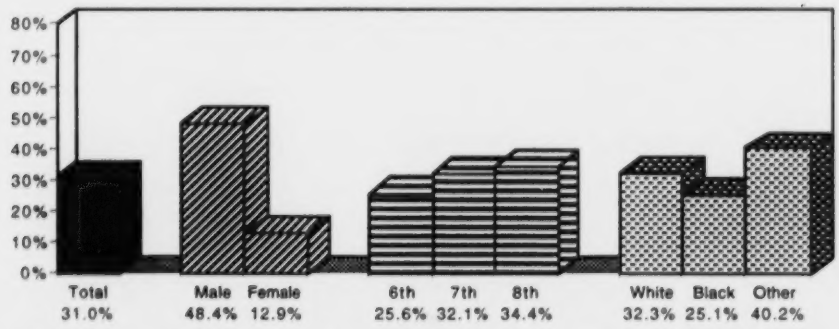

Figure 2. Percentage of North Carolina middle school students who had ever carried a gun

- Males were nearly four times as likely as females to have carried guns.
- Students in the higher grade levels were more likely to have carried guns: 7% more seventh graders than sixth graders, and 9% more eighth graders than sixth graders.
- A greater proportion of white students (32%) than black students (25%) reported carrying guns. And an even greater proportion of students in the "Other" category (40%) indicated that they had carried guns.

- White males were more likely (51%) than black males (40%) to carry guns. White females (11%) and black females (12%) were less likely than males to carry guns.

Carrying Other Weapons

More than three out of seven of the middle school students (44%) said they had carried other types of weapons, such as knives or clubs (Figure 3).

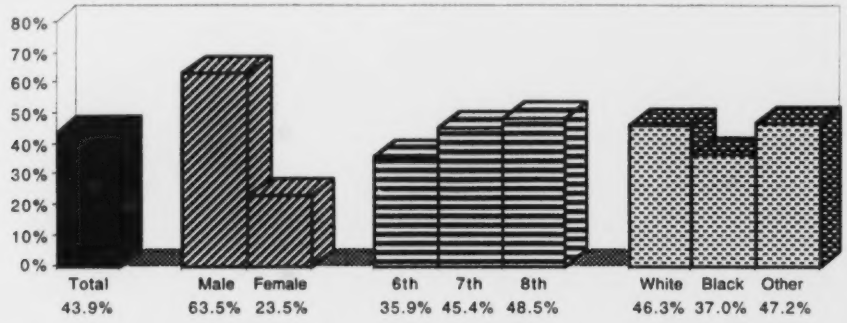

Figure 3. Percentage of North Carolina middle school students who had ever carried other weapons

- Males were more likely (64%) than females (24%) to carry weapons other than guns.

- Students at higher grade levels were more likely to carry weapons other than guns: seventh graders were 9% more likely than sixth graders, and eighth graders were 13% more likely than sixth graders to carry other weapons.

- Nearly half of the "Other" race category (47%), including Hispanic, Native American, and Asian students, and almost as high a proportion of white students (46%), reported carrying other weapons. A smaller proportion of black students (37%) said they had carried weapons other than guns.

- Among the white students and the black students, white males were most likely (70%) to carry alternative weapons, followed by black males (49%). Black females (27%) and white females were less likely (20%) than males to carry weapons other than guns.

Carrying Guns at School

Students carrying guns at school have generated growing concern. Immediate access to firearms or some other lethal weapon is the factor that may turn a volatile situation into a tragic event (Loftin, McDowell, Wiersema, & Cottrey, 1991; Sloan, Kellermann, & Reay, 1988). Of middle school students, 3 percent reported carrying guns on school property (Figure 4). Although percentages are low, patterns across categories are similar to carrying guns and weapons generally, except for race. While a smaller proportion of black students reported carrying guns and weapons than white students, black students were twice as likely to carry guns at school.

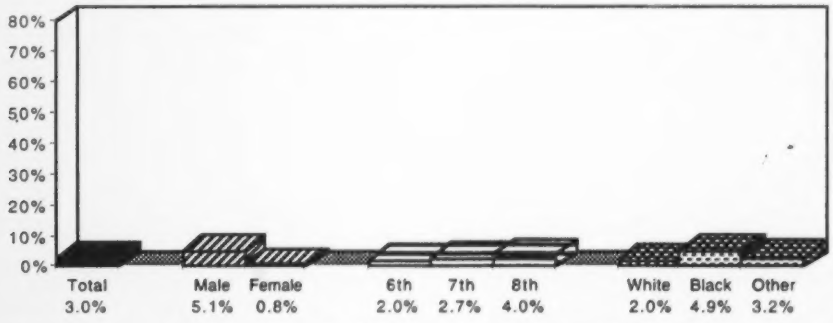

Figure 4. Percentage of North Carolina middle school students who had ever carried a gun on school property

- While the proportions were small, males were six times as likely (5%) as females (0.8%) to carry guns at school.

- Grade level appeared to be directly related to this behavior: 2% of sixth graders, 3% of seventh graders, and 4% of eighth graders said they had carried guns in school.

- White students were much less likely (2%) than black students (5%) to carry guns at school.

- Black males were more likely (9%) to carry guns at school than white males (4%). White females and black females were much less likely than either of the male groups to carry guns at school.

Carrying Other Weapons at School

One out of seven students (14%) said that they had carried other types of weapons such as knives or clubs at school (Figure 5).

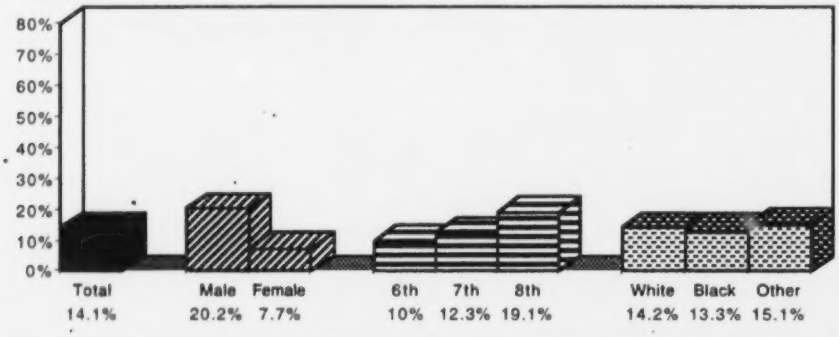

Figure 5. Percentage of North Carolina middle school students who had ever carried any other weapon on school property

- Male students were two-and-one-half times as likely as female students to carry other weapons at school.

- Students at higher grade-levels reported carrying other weapons to school: 10% of sixth graders, 12% of seventh graders, and 19% of eighth graders.

- White males appeared more likely (21%) to carry other weapons than black males (18%); black females (10%) and white females (6%) were less likely than males to carry weapons other than guns at school.

Being Threatened or Injured

One-tenth of North Carolina middle school students (10%) claimed to have been either threatened or injured with weapons at school (Figure 6).

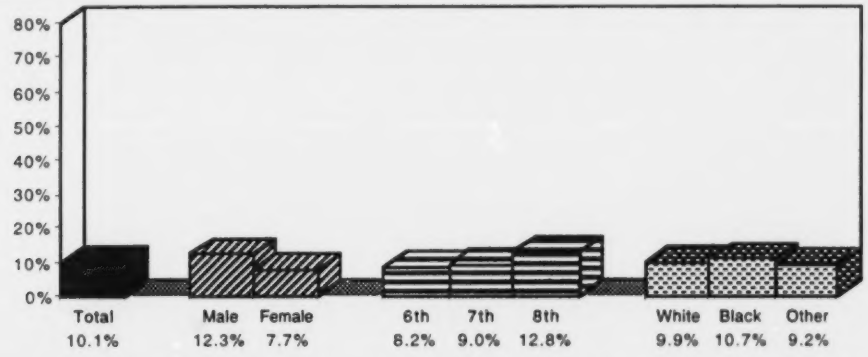

Figure 6. Percentage of North Carolina middle school students who had been threatened with, or injured by, weapons at school

- Male students were one-and-one-half times as likely as female students to receive threats or injuries.

- Students in higher grades were more susceptible to threats and injuries: 8% of sixth graders, 9% of seventh graders, and 12% of eighth.

- Greater percentages of black males reported being threatened or injured (14%) than white males (12%), while black females and white females were considerably less likely (7%) to be threatened or injured than the males.

Fighting

Two-thirds (66%) of the students claimed to have been in at least one physical fight, more than four out of five boys and over half of the girls (Figure 7).

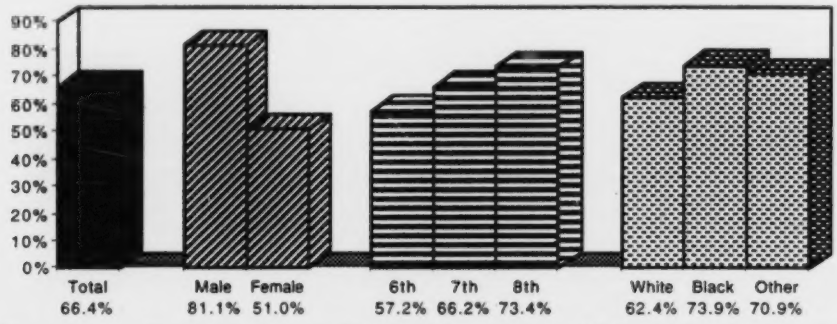

Figure 7. Percentage of North Carolina middle school students who had been in physical fights

- Students in the higher grade levels were more likely to have been in fights: 9% more seventh graders than sixth graders, and 16% more eighth graders than sixth graders, were in fights.

- White students were less likely than black students and other students to have been in fights.

- Black males and white males were about equally likely (80%-83%) to have been in fights. Black females were more likely (66%) than white females (42%) to have been in fights.

Being Injured from Fights

Being in fights in which they were hurt sufficiently to require treatment by a nurse or doctor was reported by 6 percent of the students (Figure 8).

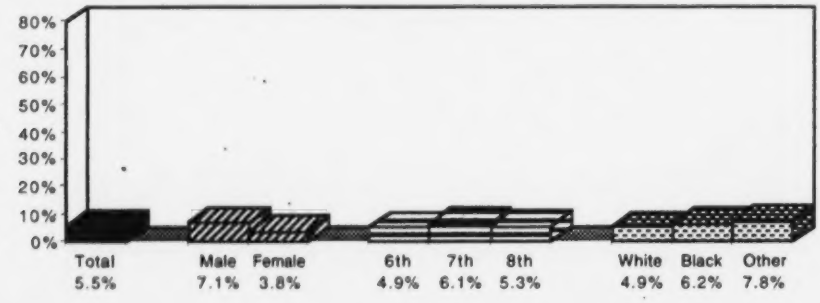

Figure 8. , Percentage of North Carolina middle school students injured in physical fights and treated by doctor or nurse

- Males were more likely than females to have gotten hurt in fights.
- Black females were more likely (5%) than white females (3%) to have been hurt in fights.

Suicide-Related Behavior

Nationally, firearm-related suicides tripled between 1950 and 1980, and account for 60 percent of adolescent and young-adult suicides (United States Department of Health and Human Services, 1990). Suicide is the third-leading cause of death among U. S. youth aged 15-24, and the second-leading cause of death among white males aged 15-24 (National Center for Health Statistics, 1993).

Considering Suicide

One-fourth (27%) of the students reported having thought about suicide (Figure 9).

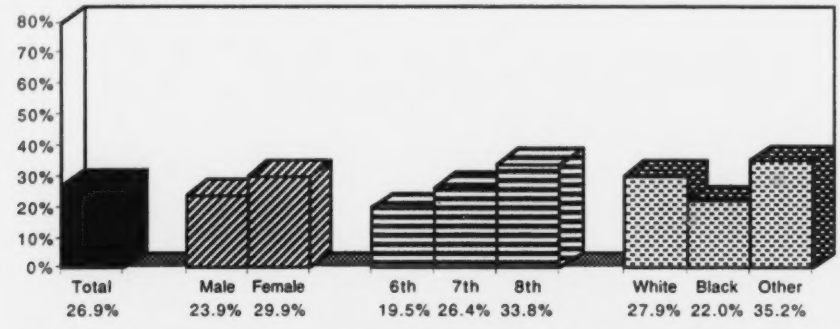

Figure 9. Percentage of North Carolina middle school students who thought about killing themselves

- Suicide was considered by more female than male students.
- Consideration of suicide was more prevalent among students in higher grades: 7% more seventh graders than sixth graders, and 14% more eighth graders than sixth graders, considered suicide.
- A 6% greater proportion of white students than black students, and a 13% greater proportion of other students than black students, said they had thought seriously about suicide.
- Black male students were less likely (18%) to consider suicide than white males (26%) and black females (25%), but white females were most likely (30%) to have thought seriously about suicide.

Planning Suicide

More than one out of seven (16%) of the students reported planning suicide (Figure 10).

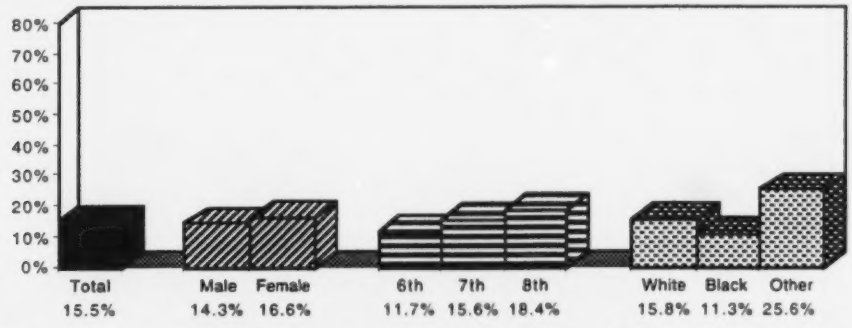

Figure 10. Percentage of North Carolina middle school students who planned to kill themselves

- More females than males planned suicide.
- Eighth graders were most likely to have planned suicide, 7% more than sixth graders, and 3% more than seventh graders.
- A greater proportion of other students had planned suicide than white or black students.
- Black males (10%) and black females (12%) were less likely than either white males (15%) or white females (17%) to have planned suicide.

Attempting Suicide

More than one in ten North Carolina middle school students (11%) reported suicide attempts (Figure 11).

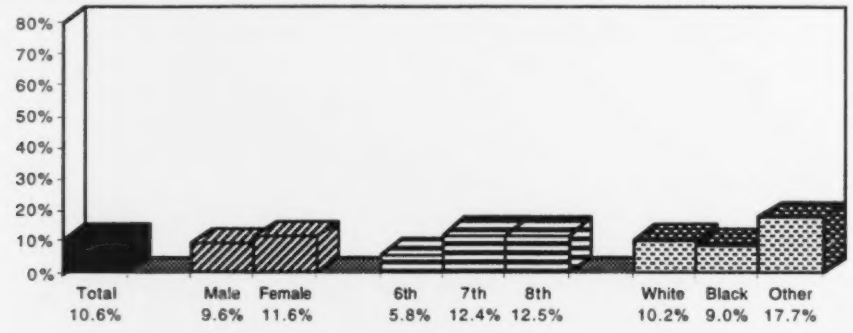

Figure 11. Percentage of North Carolina of middle school students who tried to kill themselves

- Female students were more likely than male students to have attempted suicide.
- Seventh and eighth graders were twice as likely as sixth graders to attempt suicide.
- Other students had a greater likelihood (18%) of suicide attempts than white students (10%) and black students (9%).
- White females were more likely to attempt suicide (11%) than students of other groups (9-10%).

Vehicle Safety

The final safety considerations in this section asked about riding in cars with drivers who had been drinking alcohol, and using safety equipment such as seat belts and helmets for bicycle-riding, skateboarding, and rollerblading. Nationally, the leading cause of death among youth aged 15-24 is from motor vehicle collision injuries, about half of which involve drivers who had been drinking alcohol (National Center for Health Statistics, 1993).

Riding with a Driver Who Had Drunk Alcohol

Four out of ten of students (40%) reported having ridden in a car driven by someone who had been drinking alcohol (Figure 12).

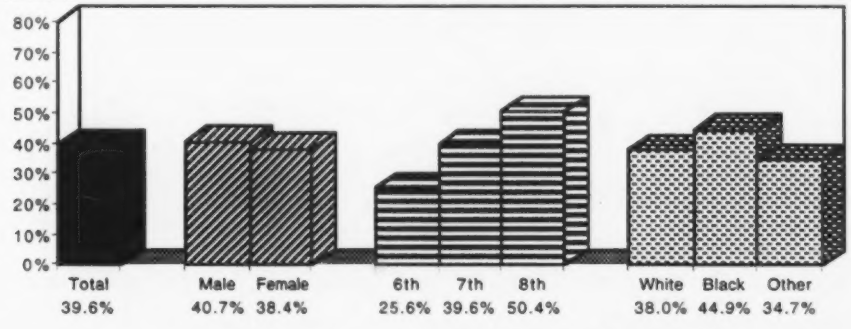

Figure 12. Percentage of North Carolina middle school students who rode in a car with a driver who had drunk alcohol

- Seventh graders were more than one-and-one-half times as likely as sixth graders to ride with a drinking driver. Eighth graders were about twice as likely as sixth graders to ride with a driver who had drunk alcohol.

- A greater proportion of black students (45%) than either white students (38%) or other students (35%) had ridden in cars driven by drivers who had drunk alcohol.

- Nearly half of black males (46%) and almost as many black females (44%) had ridden with drivers who had been drinking, while 37-39% of white males and white females had ridden with drivers who had drunk alcohol.

Not Using Seat Belts

Seat belt use is estimated to reduce motor vehicle fatalities. One out of ten students reported rarely or never wearing seat belts when riding in a car (Figure 13).

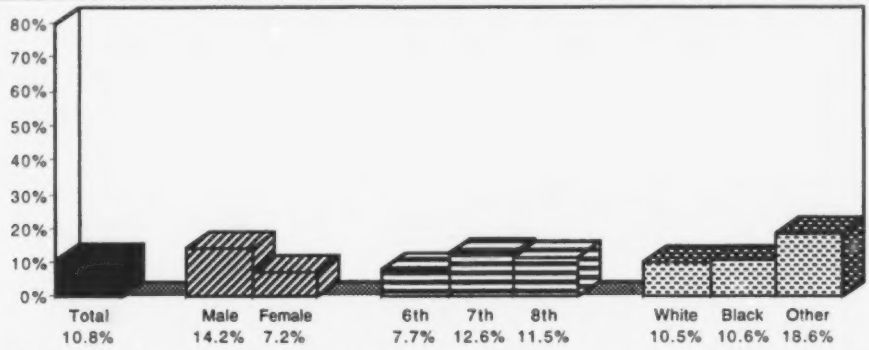

Figure 13. Percentage of North Carolina middle school students who never or rarely wore seat belts

- Males declined seat belt use at a rate twice that of females.

- While seventh and eighth grade students appeared less likely than sixth graders to use seat belts, the rate of non-use increased with age.

Grade 6: 8%	Grade 7: 13%	Grade 8: 12%	
Under Age 12: 6%	Age 12: 9%	Age 13: 11%	Over Age 13: 14%

- White and black students showed relatively little difference in their non-use of seat belts, but students in the "Other" race category were less likely to use seat belts than either black students or white students.

- White females (7%) and black females (8%) declined seat belt use less than black or white males (14%).

Not Wearing Bicycle Helmets

Head injury is the leading cause of death in motorcycle and bicycle collisions (Sosin, Sacks, & Holmgreen, 1990). While wearing a bicycle helmet can greatly reduce the likelihood of serious head injury, bicycle helmet use is declined at a much higher rate than seat belt use. Three-fourths of the students rarely or never wore a helmet when riding a bicycle (Figure 14).

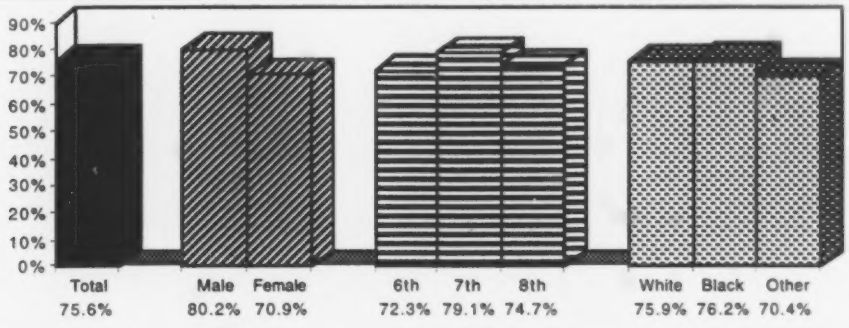

Figure 14. Percentage of North Carolina middle school students who never or rarely wore helmets when riding bicycles

- Males declined helmet use at a higher rate than females.

- Older students appeared to be more likely to decline wearing bicycle helmets.

  Grade 6: 72% Grade 7: 79% Grade 8: 75%

  Under Age 12: 70% Age 12: 76% Age 13: 79% Over Age 13: 73%

- White students and black students showed little difference (76%), but students of the "Other" race category were less likely to decline wearing bicycle helmets (70%).

- Greater percentages (79-81%) of white males and black males declined using bicycle helmets than white females (71%) and black females (74%).

Not Wearing Skating Helmets

Not wearing helmets when skateboarding or rollerblading is apparently less common than not wearing bicycle helmets. More than two out of five skateboarders and rollerbladers said they rarely or never wore helmets.

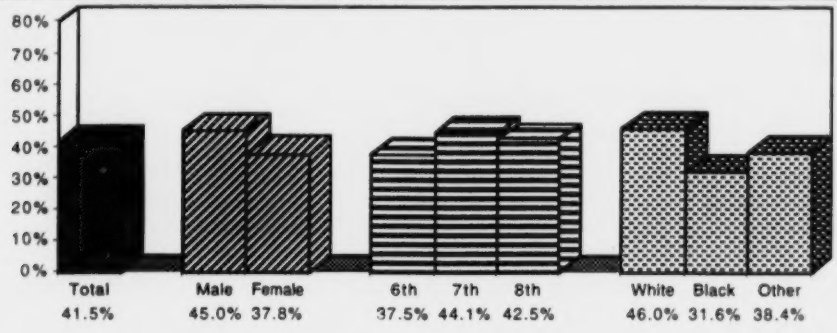

Figure 15. Percentage of North Carolina middle school students who never or rarely wore skateboarding or rollerblading helmets

- Males declined helmet use at higher rates than females.

- Older students appeared to be more likely not to use helmets.

  Grade 6: 38% Grade 7: 44% Grade 8: 43%

  Under Age 12: 34% Age 12: 41% Age 13: 43% Over Age 13: 43%

- White students declined helmet use (46%) more than black students (32%) and students of other races (38%).

- Half of the white male skateboarders and rollerbladers (50%) declined helmet use as compared to 41% of the white female skaters. Black female and black male skateboarders and rollerbladers were less likely to decline use of helmets (31% and 32%, respectively) than white males or white females.

SECTION II: TOBACCO, ALCOHOL, AND OTHER DRUG USE

SECTION II: TOBACCO, ALCOHOL, AND OTHER DRUG USE

The use of these substances by young people poses a wide range of health and safety hazards.

Tobacco

Tobacco use is the chief preventable cause of death in the United States (Office on Smoking and Health, 1989; United States Department of Health and Human Services, 1994). At present, 20 million of the 70 million United States children smoke cigarettes. Five million of them can be expected to die of tobacco-related diseases (Office on Smoking and Health, 1989). Despite health warnings, onset of tobacco use occurs most often during adolescence, usually by age sixteen (George Gallup International Institute, 1992). More than a million teenagers begin smoking each year, a rate that remained about the same through the late 1970s and 1980s (United States Department of Health and Human Services, 1990). Smoking is related to poor academic performance and to use of alcohol and drugs (Johnston, O'Malley, and Bachman, 1987).

Smoking Cigarettes

Over half of the students in this survey reported having tried smoking cigarettes, including two-thirds of the eighth graders (Figure 16).

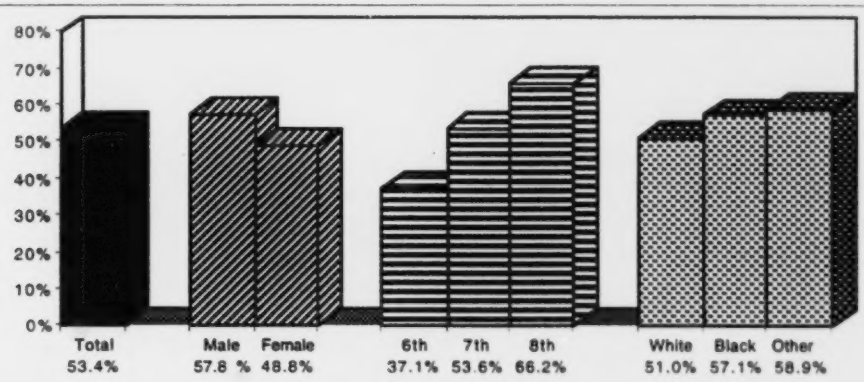

Figure 16. Percentage of North Carolina middle school students who had ever smoked cigarettes

- More males than females reported having tried cigarette smoking.

- Cigarette smoking increased dramatically for students of higher grade levels: 17% more seventh graders than sixth graders, and 29% more eighth graders than sixth graders, had smoked cigarettes.

- Greater proportions of black students and other students smoked cigarettes than white students. This finding contrasts with the high school results for both 1993 and 1995, which show more white students than black students smoking cigarettes.

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- Among black students and white students, black males were most likely (58%) to have tried smoking cigarettes, and white females were least likely (45%) to have tried them, while white males and black females were about equally likely (56-57%) to have tried smoking cigarettes.

Smoking before Age 11

One out of six students indicated having smoked their first whole cigarette before age 11 (Figure 17).

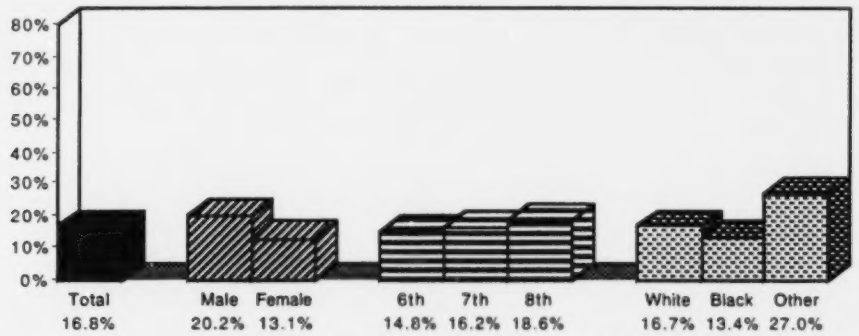

Figure 17. Percentage of North Carolina middle school students who had ever smoked a whole cigarette before age 11

- More males than females smoked cigarettes before age 11.
- A smaller proportion of sixth graders (15%) than seventh (16%) or eighth graders (19%) had smoked their first cigarette by age 11.
- A greater proportion of white students (17%) than black students (13%), and an even greater proportion of other students (27%), admitted starting to smoke before age 11.
- White males (22%) were most likely to have smoked before age 11, and white females (11%) were least likely, while black males (14%) and black females (13%) were about equally likely to have smoked cigarettes by age 11.

Smoking in the Previous 30 Days

One-fifth of the students reported that they had smoked cigarettes in the 30 days before the survey (Figure 18).

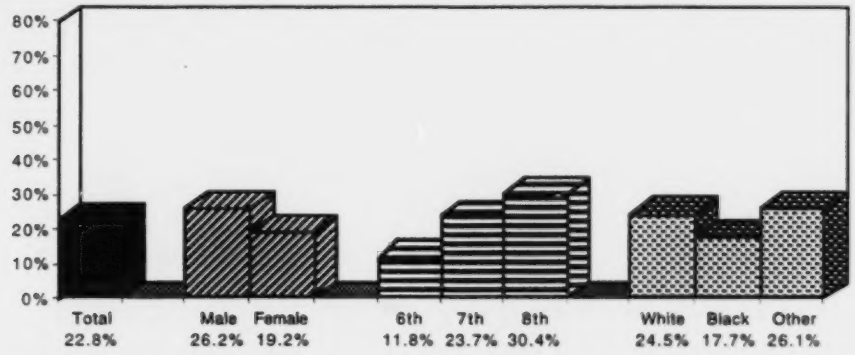

Figure 18. Percentage of North Carolina middle school students who smoked cigarettes in the previous 30 days

- Males were more likely than females to have smoked cigarettes recently.
- A smaller proportion (12%) of sixth graders than seventh (24%) and eighth graders (30%) had smoked cigarettes in the previous 30 days.
- Greater proportions of white students (25%) and other students (26%) than black students (18%) said they had smoked cigarettes in the previous 30 days.
- Black females were less likely (13%) than other students to have smoked cigarettes in the previous 30 days, as over 20% of students of the other groups indicated having smoked in the past 30 days: 21% of white females, 23% of black males, and 28% of white males.

Smoking More Than One Cigarette per Day

One out of eight students reported having smoked two or more cigarettes per day on the days when they smoked cigarettes (Figure 19).

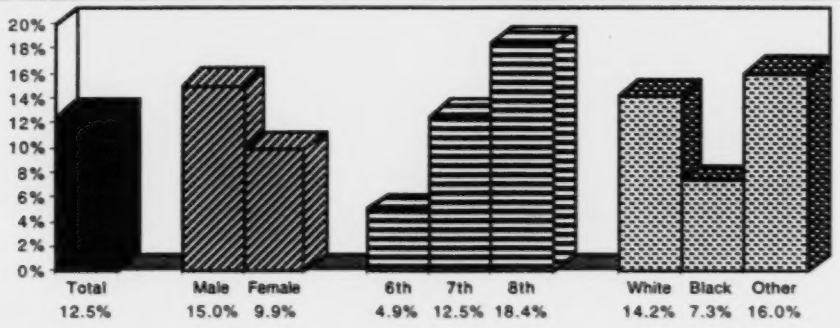

Figure 19. Percentage of North Carolina middle school students who smoked two or more cigarettes per day

- More males than females smoked at least two cigarettes per day on the days they smoked cigarettes.

- Seventh graders were more than twice as likely as sixth graders to have smoked at least two cigarettes per day, and eighth graders were nearly four times as likely as sixth graders to have smoked more than one cigarette per day.

- Students of other races (16%) were more likely than white students (14%) or black students (7%) to have smoked two or more cigarettes per day.

- Black females were far less likely (5%) than black males (10%), white females (12%), or white males (17%) to have smoked at least two cigarettes per day.

Getting Cigarettes from a Store

Getting cigarettes by buying them in a store in the 30 days prior to this survey was reported by 4 percent of the students surveyed (Figure 20).

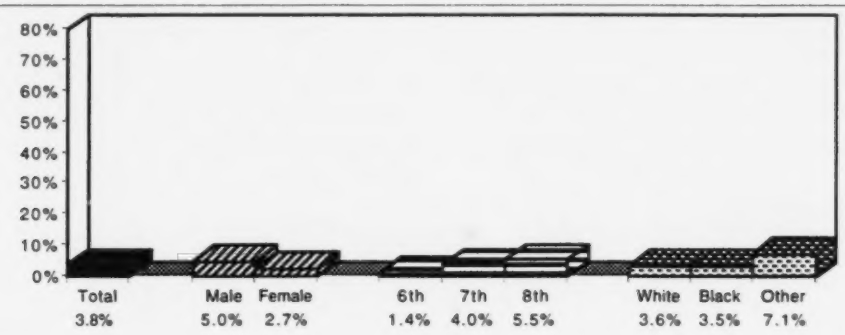

Figure 20. Percentage of North Carolina middle school students who usually got their own cigarettes by buying them in a store

- More males than females reported getting their cigarettes from a store.
- Students of lower grades were less likely than others to get their cigarettes from a store.
- The same proportion of white students and black students indicated having gotten cigarettes from a store, but twice the proportion of other students said they got cigarettes from a store.

Not Having to Show Proof of Age

One out of eleven (9%) of the students who smoked cigarettes reported being able to buy them in a store without being asked to show proof of age (Figure 21).

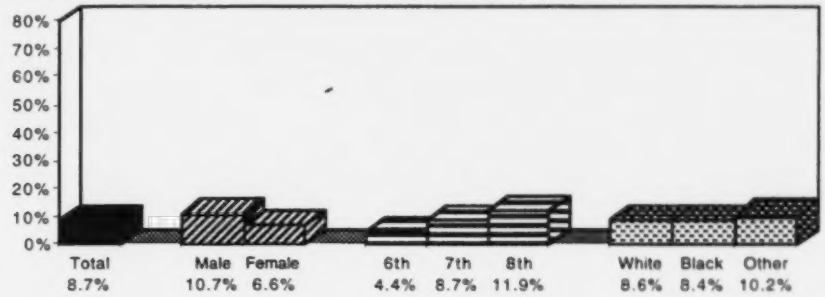

Figure 21. Percentage of cigarette-smoking students who were not asked to show proof of age when they bought cigarettes in a store

- More males than females reported buying cigarettes without showing proof of age.
- Seventh grade students were 4% more likely than sixth grade students to buy cigarettes without having to show proof of age, and eighth grade students were 8% more likely than sixth grade students.
- White students and black students were about equally likely (between 8 and 9%) to have bought cigarettes without having to show proof of age, but a greater percentage (10%) of other students reported doing so.
- White males and black males were about equally likely (11%), and more likely than white or black females (6-7%), to have said they bought cigarettes without having to show identification.

Using Chewing Tobacco or Snuff

Oral cancer occurs more frequently among smokeless tobacco users than among nonusers, can lead to the development of other diseases, and can be nicotine-addictive (Public Health Service, 1986). From 1970 to 1986, snuff use increased fifteen times, and chewing tobacco use increased four times among males aged 17 to 19 years (Office on Smoking and Health, 1989).

Using chewing tobacco or snuff was reported by more than one-fifth of the students (Figure 22).

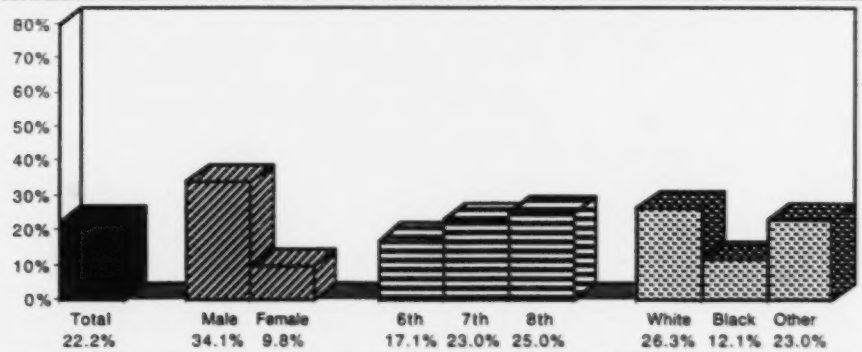

Figure 22. Percentage of North Carolina middle school students who had ever used chewing tobacco or snuff

- Three-and-one-half times as many males as females said they had used tobacco in these forms.

- The percentage of sixth graders who said they had used these products was much lower than that of either seventh or eighth graders.

- The percentage of white students using chewing tobacco or snuff was more than twice the percentage of black students doing so. The percentage reported by other students was higher also than that of black students.

- White males used these tobacco products at the highest rates (43%), while 8-14% of other students used them.

Alcohol

Alcohol is a major contributing factor in about half of all homicides, suicides, and motor vehicle collisions, the leading causes of young Americans' deaths and disabilities (Perrine, Peck, & Fell, 1988). Heavy drinking has been linked conclusively to physical fighting, destruction of property, academic and job problems, and conflicts with law enforcement authorities.

Drinking Alcohol

Over half of the students indicated that they had drunk alcohol for other than religious reasons (Figure 23).

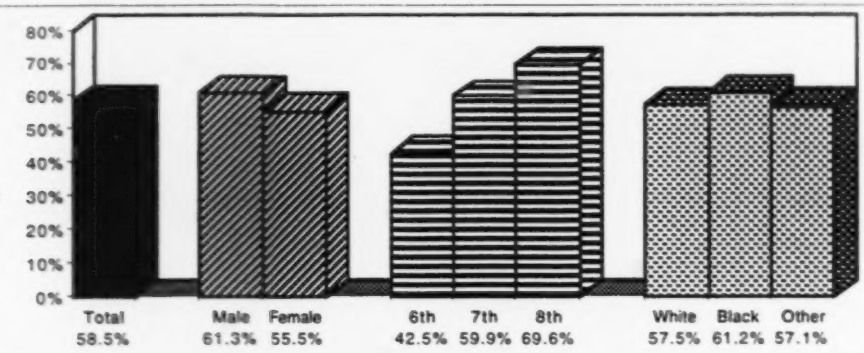

Figure 23. Percentage of North Carolina middle school students who had ever drunk alcohol

- Over half of both males and females said they had drunk alcohol.
- The percentage of students who drank alcohol increased by grade level: 17% more seventh graders than sixth graders, and 27% more eighth graders than sixth graders, had drunk alcohol.
- Over 60% of white males, black males, and black females had drunk alcohol, greater than the percentage of white females (53%) who had drunk alcohol.

Drinking Alcohol Before Age 11

One-third of the students (34%) reported having their first drink of alcohol before 11 years of age (Figure 24).

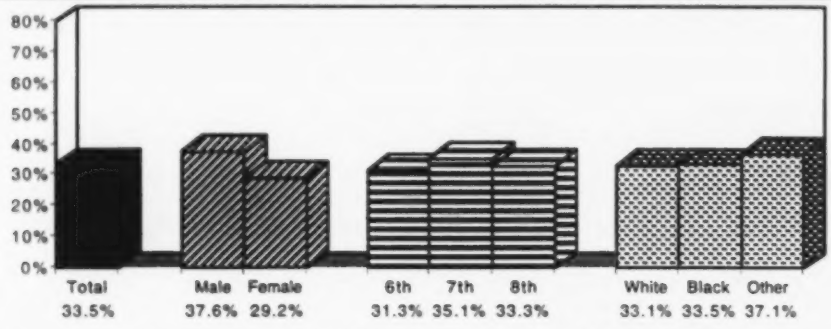

Figure 24. Percentage of North Carolina middle school students who had their first drink of alcohol before age 11

- Early drinking occurred at a greater percentage among males than females.
- Early drinking occurred at about the same percentage (33-34%) among white students and black students, but at a greater percentage (37%) among other students.
- Nearly the same high proportion of white males and black males (37-38%) reported early-age drinking, while a lower proportion of black females (30%) and white females (28%) indicated this behavior.

Marijuana and Other Drugs

Use of marijuana has been increasing nationally among eighth, tenth, and twelfth grade students in the U.S. (Johnston et al., 1994). Use of marijuana is associated with an escalating use of other illegal drugs, and is the reason marijuana is considered a serious "gateway" drug (U.S. Department of Health and Human Services, 1994).

Using Marijuana

About one out of six of the middle school students reported having used marijuana (Figure 25).

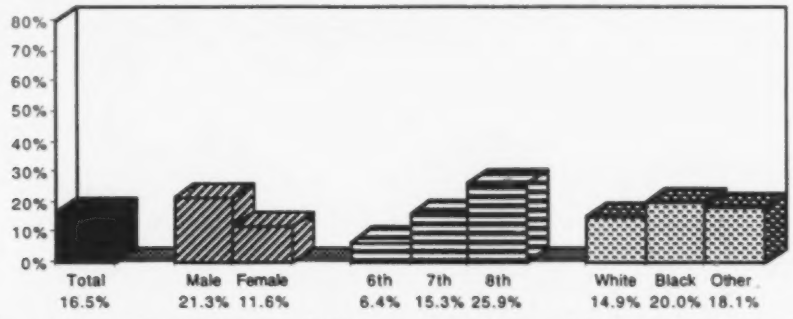

Figure 25. Percentage of North Carolina middle school students who had ever smoked marijuana

- Nearly twice as many males as females said they had used marijuana.
- Marijuana use was greater for students of higher grade levels: 9% more seventh graders than sixth graders, and 20% more eighth graders than sixth graders, had used marijuana.
- Higher proportions of black students (20%) and other students (18%) than white students (15%) reported using marijuana.
- A greater percentage (27%) of black males than white males (20%) indicated marijuana use, and a greater percentage of black females (14%) than white females (10%) used marijuana.

Using Marijuana Before Age 11

Some students (4%) reported first use of marijuana to have been by age 11 (Figure 16).

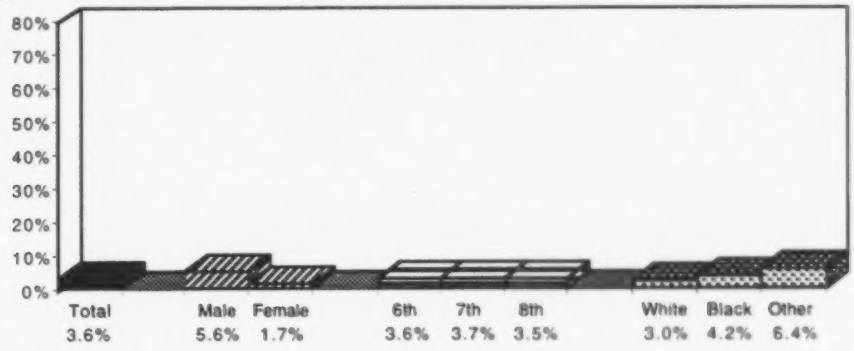

Figure 26. Percentage of North Carolina middle school students who used marijuana before age 11

- Although a small percentage, more than three times as many males as females said they had smoked marijuana by age 11.

- Students of other races were more likely (6%) than white (3%) or black students (4%) to have smoked marijuana by age 11.

- White females were least likely (1%) to have used marijuana by age 11, black females were more likely (3%), and white males (5%) and black males (6%) were more likely than female students to use marijuana by age 11.

Using Cocaine

Drug abuse, just as alcohol abuse, is associated with injury-related morbidity and mortality, and also with unwanted pregnancy, school failure, delinquency, and the contraction of sexually transmitted diseases (Blanken, 1993). A seemingly small percent (3%) of the students reported having used cocaine (Figure 27).

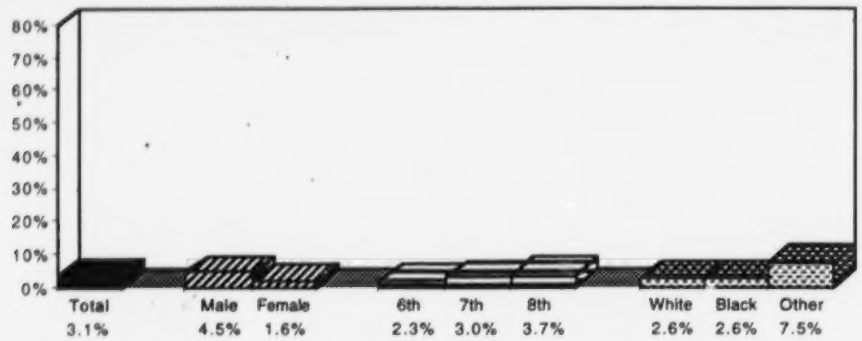

Figure 27. Percentage of North Carolina middle school students who had ever used any form of cocaine

- Students using cocaine were much more likely to be male than female.
- Greater percentages of students of higher grades used cocaine.
- Black females were least likely to use cocaine (1%) as compared with white females (2%), white males (4%), and black males (5%).

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Using Cocaine Before Age 11

Cocaine use before age 11 was reported by 1 percent of the students (Figure 28).

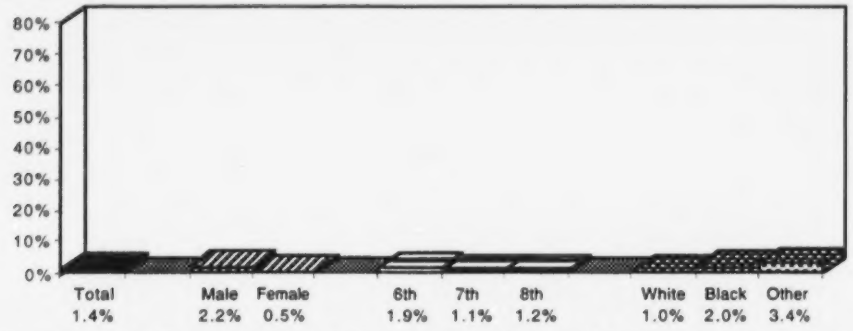

Figure 28. Percentage of North Carolina middle school students who used cocaine before age 11

- Males were more than four times as likely as females to use cocaine by age 11.

- Black males were more likely (4%) than white males (2%) to use cocaine early in life; black females and white females were less likely (0.3% and 0.5%, respectively) to have used cocaine by age 11.

Using Crack

Using crack or freebase cocaine was reported by 2 percent of the students (Figure 29).

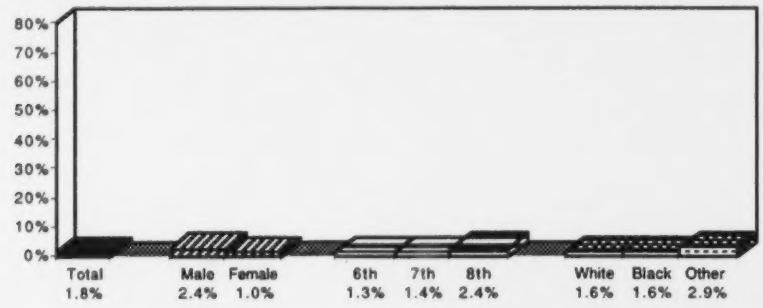

Figure 29. Percentage of North Carolina middle school students who had ever used crack or freebase cocaine

- Males were twice as likely as females to use crack.
- The percentage of students using crack was greater among eighth graders (2%) than among sixth and seventh graders (1%).
- White students and black students were equally likely (2%) to use crack, while other students were more likely (3%) to use crack.
- Black males and white males showed little difference in crack use (2%), nor was there a difference between black females and white females (0.8%).

Sniffing Glue

Nearly one out of five (19%) of the students in this survey admitted sniffing glue or breathing the contents of sprays or paints to get high (Figure 30).

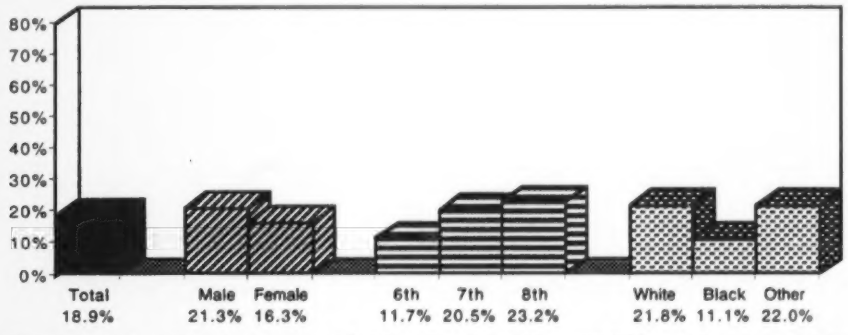

Figure 30. Percentage of North Carolin middle school students who sniffed glue or spray containers

- Although more boys than girls reported this behavior, a fairly high rate of both (21% and 16% respectively) claimed to have engaged in sniffing glue to get high.

- Grade level differences were notable in the reported incidence of this behavior: 12% of sixth graders, 21% of seventh graders, and 23% of eighth graders.

- About half the proportion (11%) of black students reported this behavior as white students and other students (22%).

- Among black students and white students, white males were most likely (25%) to report sniffing glue or paint, and white females were the next most likely (18%). Little difference was shown in the lower rate for black males and black females (11%).

Using Steroids

Steroid use is denounced internationally, athletic youth apparently most vulnerable to this abuse. Steroid use was reported by 3 percent of the middle school students (Figure 31).

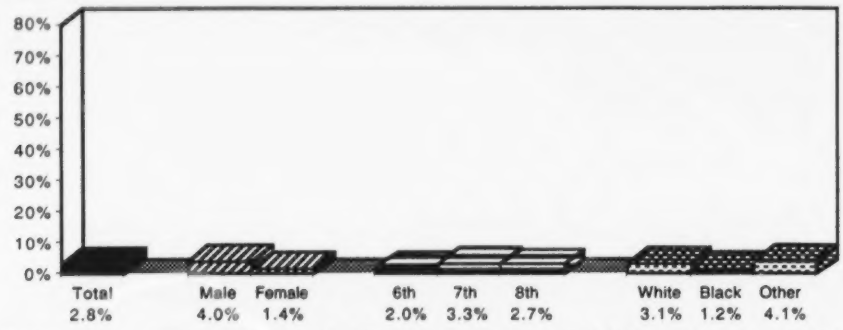

Figure 31. Percentage of North Carolina middle school students who had ever used steroids

- Although the percentages are small, use of steroids is a predominantly male phenomenon, with males claiming to use steroids much more than females (4% versus 1%).

- A higher proportion of white students (3%) said they used steroids than black students (1%), but other students reported steroid use at the highest rate (4%).

- Among white students and black students, white males reported using steroids most (5%), black males about half as frequently (2%), only 1% of white females, and a much smaller proportion of black females (0.2%).

Injecting Illegal Drugs

Injection of illegal drugs by needle into the body was reported by 1 percent of the students (Figure 32).

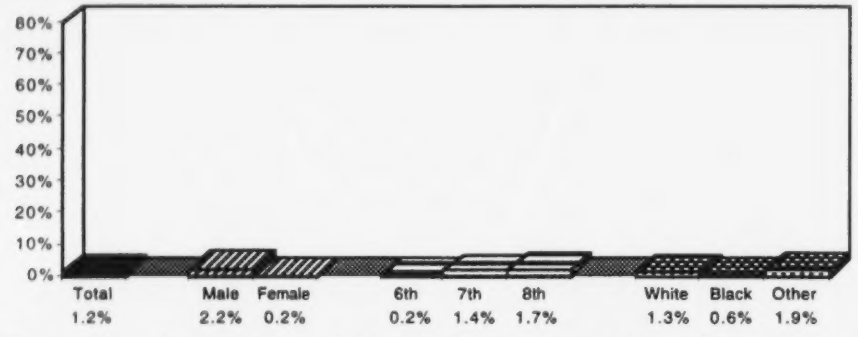

Figure 32. Percentage of North Carolina middle school students who had ever injected illegal drugs into their bodies

- While only 1% of these students reported drug injection by needle, they were nearly all males (2% versus 0.2% of females).
- Illegal drug injection appeared to increase from sixth to eighth grades.
- White males appeared to be more likely to inject drugs (2%) than black males (1%), only 0.3% of white females said they injected drugs, and no black females reported injecting illegal drugs.

SECTION III: PERSONAL HEALTH

SECTION III: PERSONAL HEALTH

Some of the items in the YRBS are related to diet, exercise, and AIDS education. About five out of six of these students (83%) reported frequent physical exercise, but other responses show that some teenagers eat imbalance diets, fail to get good daily exercise, and engage in high-risk, weight-management practices.

Nutrition

Body weight is an important consideration in our society. Overemphasis on slimness during adolescence contributes to eating disorders such as anorexia nervosa and bulimia (Herzog & Copeland, 1985; Mitchell & Eckert, 1987). Adolescent females represent a high-risk population for the development of these two health problems, as they comprise ninety to ninety-five percent (90-95%) of patients with eating disorders (American Psychiatric Association, 1987). At an important time of growth and physical changes in their bodies, adolescents who choose to diet run the risk of adverse health outcomes by reducing or altering their nutritional intake. Obesity among children and adolescents leads to adolescent problems of depression, family conflict, and declining school performance (Stein, 1987).

Viewing Oneself as Overweight

Nearly a fourth (24%) of the students described themselves as overweight (Figure 33).

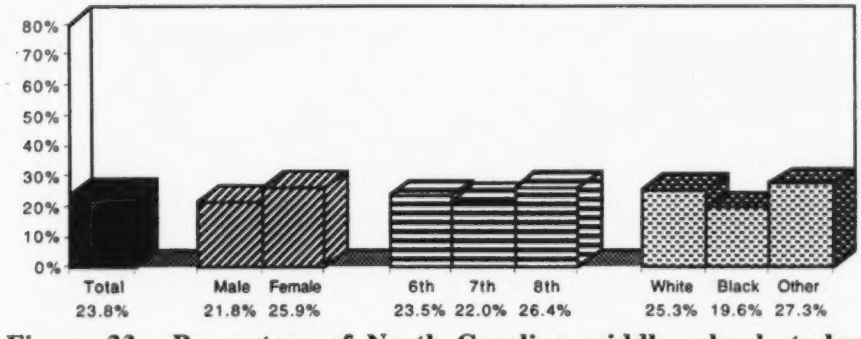

Figure 33. Percentage of North Carolina middle school students who described themselves as overweight

- More than a fourth of the females and more than a fifth of the males considered themselves overweight.
- Nearly a fifth of the black students, more than a fourth of the white students, and a somewhat higher proportion of the other students reported being overweight.

White females were more likely to consider themselves overweight (27%), white males and black females reported themselves overweight at nearly the same rates (24% and 23% respectively), and black males were less likely to say they were overweight (15%).

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Trying to Lose Weight

While 24 percent of the students thought they were overweight, many more (40%) were trying to lose weight (Figure 34).

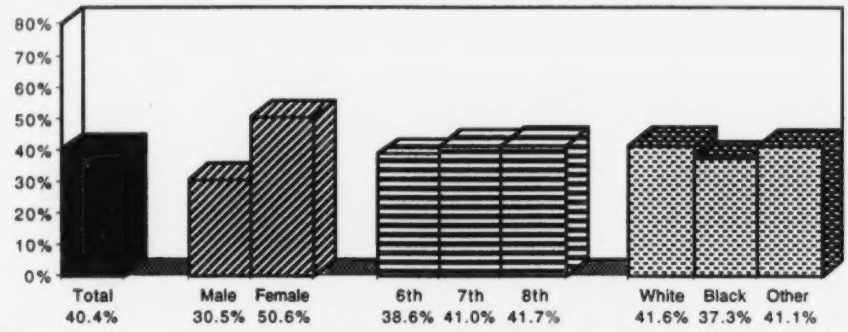

Figure 34. Percentage of North Carolina middle school students who were trying to lose weight

- One-half (51%) of the females and one-third (31%) of the males said they were trying to lose weight.

- White females were the most likely to try to lose weight (54%), followed by black females (47%), white males (31%), and black males (26%).

Dieting

The survey questions addressed four weight-loss methods: dieting, exercising, vomiting or taking laxatives, and taking diet pills. Each of these practices contains obvious potential health hazards for young people. Over a third of the students (35%) said they had dieted for weight-loss or for prevention of weight-gain (Figure 35).

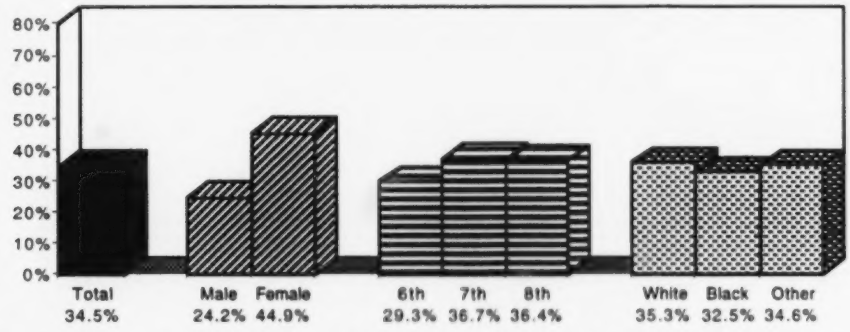

Figure 35. Percentage of North Carolina middle school students who had ever dieted to lose weight

- Females were much more likely than males to have dieted.
- Younger students appeared to be less likely to have dieted.
- Black students were least likely to have dieted.
- Nearly half of the white females (47%) and more than two out of five black females (40%) reported dieting; about the same percentage of white males (25%) and black males (23%) had dieted.

Exercising to Lose Weight

Three out of five (59%) students said they had exercised to lose weight or keep from gaining weight (Figure 36).

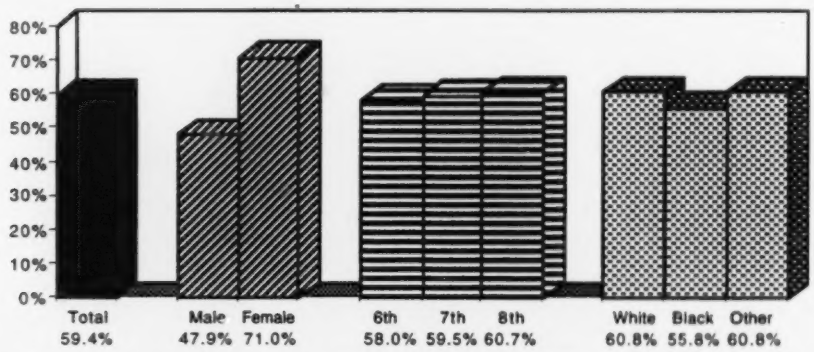

Figure 36. Percentage of North Carolina middle school students who had ever exercised to lose weight or keep from gaining weight

- More females than males had exercised to lose weight.

- White females were the most likely (73%) to exercise to lose or limit weight, followed by black females (67%), white males (50%) and black males (42%).

Vomiting or Taking Laxatives to Lose Weight

Intentional vomiting and taking laxatives were reported by 7 percent of the students to lose weight or prevent gain (Figure 37).

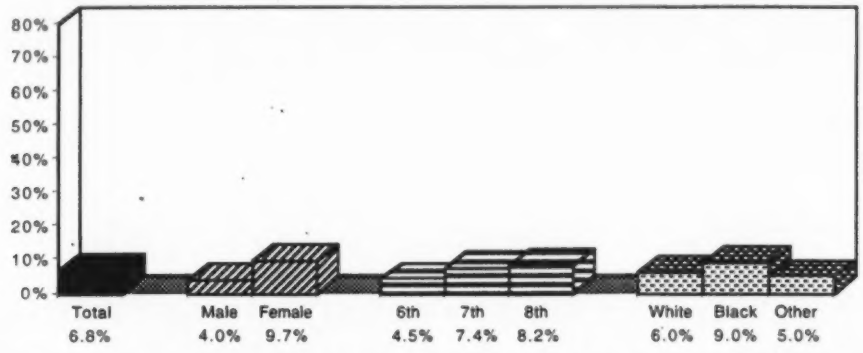

Figure 37. Percentage of North Carolina middle school students who had ever vomited or taken laxatives to lose or control weight

- More females than males vomited or took laxatives for weight-loss or weight-control.
- An increase in this behavior was seen at higher grade levels and ages.

  Grade 6: 5% Grade 7: 7% Grade 8: 8%

  Under Age 12: 2% Age 12: 5% Age 13: 8% Over Age 13: 9%

- Black students were more likely than white students or other students to use these practices.
- The same proportion (10%) of black females and white females reported vomiting or using laxatives for weight-loss or limiting weight gain; a greater percentage of black males (8%) than white males (3%) reported these behaviors.

Taking Diet Pills

Taking diet pills to lose or limit weight was reported by 7 percent of these students (Figure 38).

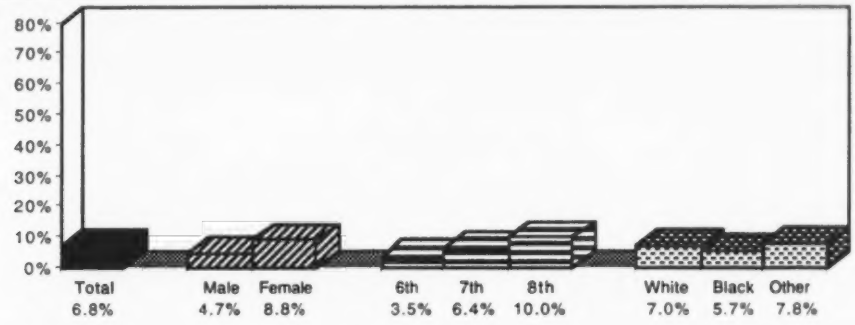

Figure 38. Percentage of North Carolina middle school students who had ever taken diet pills to lose weight

- More females than the males reported taking diet pills.
- A greater percentage of students at higher grade levels took diet pills: 3% more seventh graders than sixth graders, and 7% more eighth graders than sixth graders.
- Black students were least likely (6%) to take diet pills, followed by white students (7%) and then other students (8%).
- White females were most likely (10%) to take diet pills, black females and black males were about equally likely (6%), and white males were least likely (4%).

Eating High-Fat Meats

Five questions were asked regarding foods the students ate. The foods or food groups in question were fatty meats, fat-fried potatoes, high-sugar foods, vegetables, and fruits. Americans get more than 36 percent of their daily caloric intake from fat (Public Health Service, 1988). When asked if they had eaten hamburger, hot dogs, sausage, bacon, or barbecue the previous day, well over half (59%) said they had (Figure 39).

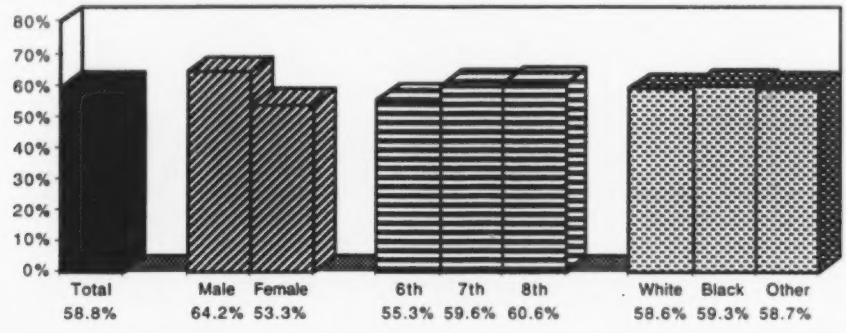

Figure 39. Percentage of students who ate hamburgers, hotdogs, sausage, bacon, or barbecue the previous day

- About 11% more males than females reported eating one of these meats on the day before this survey.
- Sixth grade students were 4-5% less likely than other students to eat these fatty meats.
- Black males and females were about equally likely to eat fatty meats (59-60%), but a greater percentage of white males (66%) and a lower percentage of white females (51%) responded affirmatively.

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Eating High-Fat Potato Foods

Two-thirds (68%) of the students reported that they had eaten either French fried potatoes or potato chips the previous day (Figure 40).

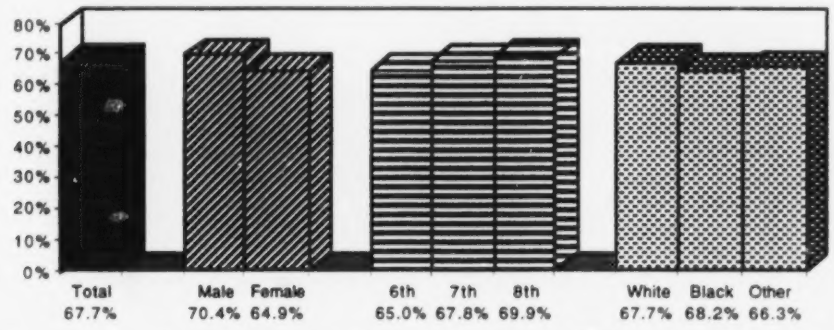

Figure 40. Percentage of North Carolin middle school students who ate French fries or potato chips the previous day

- Eating high-fat potato products was about 5% more likely among males than among females.

- White males were most likely (72%) to have eaten these potato foods, black males and females were about equally likely (68%), and white females were least likely (63%).

Eating High-Sugar Foods

Over three-fourths (77%) of the students said they had eaten candy, cookies, doughnuts, pie, or cake on the preceding day (Figure 41).

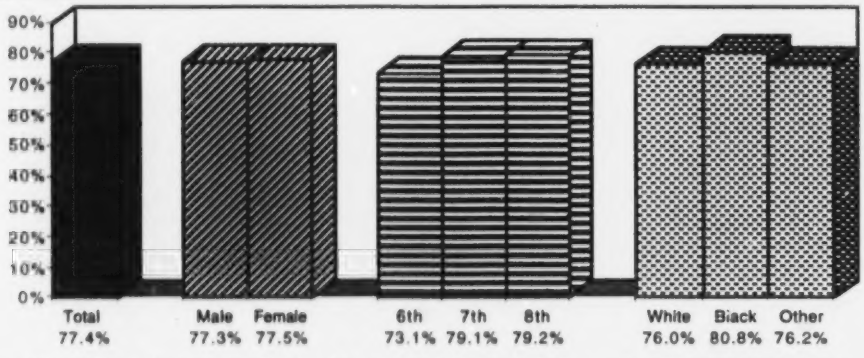

Figure 41. Percentage of North Carolina middle school students who ate candy, cookies, doughnuts, pie, or cake the previous day

- Sixth grade students were 6% less likely than seventh or eighth grade students to eat sweet foods.

- Black students were 5% more likely than white students and other students to eat these sugary foods.

- Black females were more likely (82%) than white females (75%) to eat the high-sugar foods. There was little difference between black males (80%) and white males (77%).

Eating Vegetables

Four out of seven (57%) of the students said they had eaten green salad or raw or cooked vegetables the day before the survey (Figure 42).

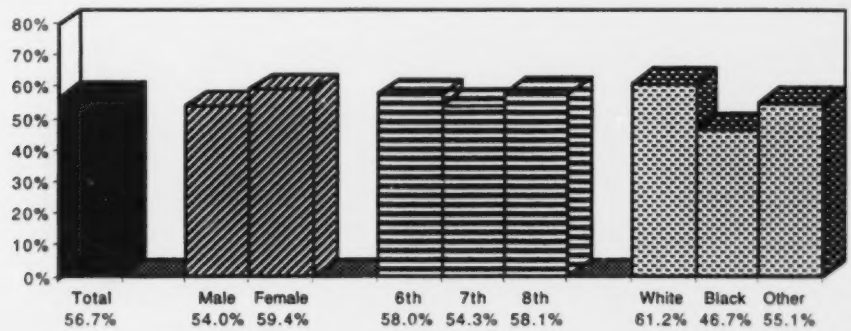

Figure 42. Percentage of North Carolina middle school students who ate green salad or vegetables the previous day

- About 5% more females than males had "eaten their vegetables".

- A greater proportion of white students than black students and other students had eaten salad or vegetables the day before, black students being the least likely to have eaten vegetables.

- White females were more likely (65%) than white males (58%) to eat vegetables or salad, but similar percentages of black females and black males ate vegetables (46-47%).

Eating Fruit

Nearly four-fifths of the students (78%) said they had eaten fruit or drunk fruit juice the day before (Figure 43).

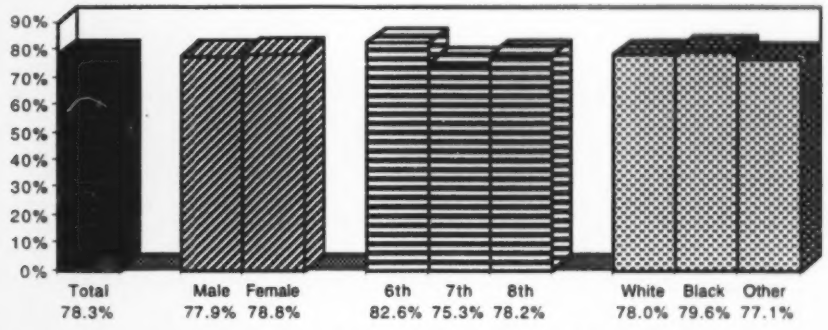

Figure 43. Percentage of North Carolina middle school students who ate fruit or drank fruit juice the previous day

- The grade-level responses were mixed.

  Grade 6: 83% Grade 7: 75% Grade 8: 78%

- Responses showed slightly declining percentages with increasing age.

  Under age 12: 84% Age 12: 80% Age 13: 77% Over Age 13: 77%

- The proportion of students who ate fruit or drank fruit juice the day before was highest for black males (82%), followed by white females (80%), black females (78%), and white males (77%).

Physical Exercise

Being physically active increases life expectancy (Paffenbarger, Hyde, Wing, & Hsieh, 1986) and improves mental health and self-esteem (Marinek, Cheffers, & Zaichowsky, 1978). Evidence has shown that school physical education (PE) programs can have a positive effect on children's physical fitness (U.S. Department of Health and Human Services, 1985 and 1987).

Exercising and Playing Sports

Students indicated that 83 percent exercised or played sports on at least three of the previous seven days (Figure 44).

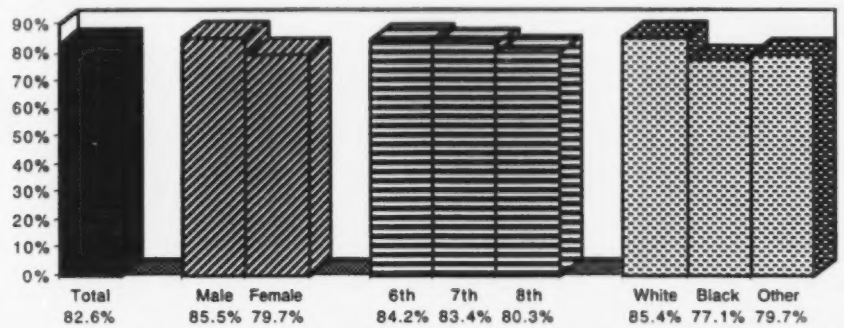

Figure 44. Percentage of North Carolina middle school students who exercised or played sports on 3 or more of the past 7 days

- Exercising or playing sports at least three days in the previous week was reported by 6% more males than females.
- A slightly lower percentage of students engaged in this activity was reported at higher grade levels.
- This activity was reported by 77% of the black students, 85% of the white students, and 80% of the other students.
- A greater percentage of white males (87%) than white females (84%), black males (81%) and black females (74%) reported exercise or sports activity.

Attending PE Classes

Attendance in PE class at least one day per week was reported by 84 percent of these students (Figure 45).

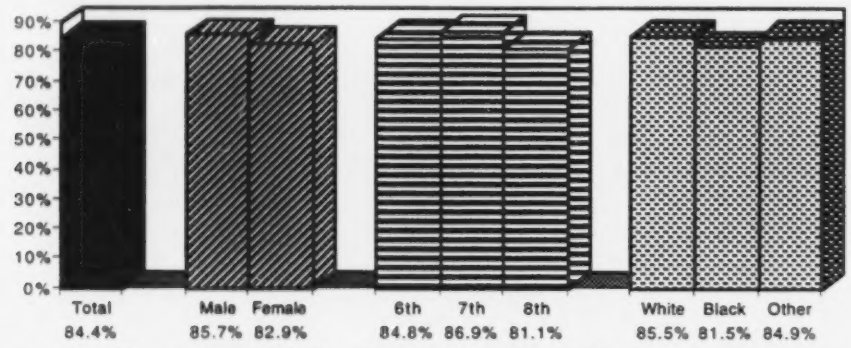

Figure 45. Percentage of North Carolina middle school students who went to physical eduction classes at least one day a week

- Weekly participation in PE class was reported by a smaller percentage of black females (78%) than white males (86%), white females (85%), and black males (86%).

Playing Sports

Nearly half of the students (44%) said they did not play on any sports team at school or with some outside organization. This was especially high for black females, nearly two-thirds of whom (64%) did not play sports (Figure 46).

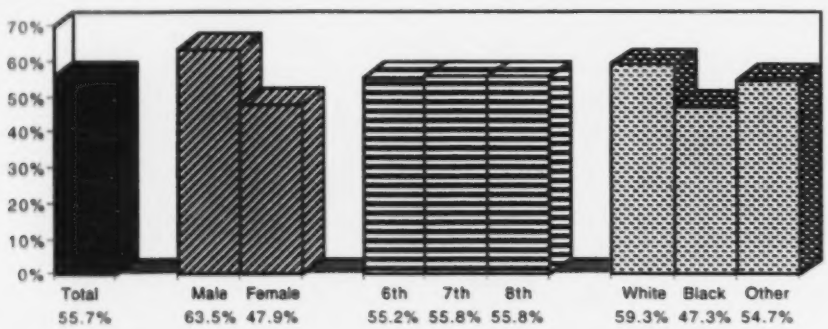

Figure 46. Percentage of North Carolina middle school students who played on any sports team

- Male students were 15% more likely to play sports than females.
- White students were more likely than black students and other students to play on a sports team.
- Over 60% of black males (61%) and white males (64%) participated on sports teams, but only 54% of white females and 36% of black females said they played on teams.

Doing Other Physical Activities

Alternatives to sports teams can provide opportunities for healthy exercise. Other organized physical activity, such as dance, gymnastics, or swimming was reported by 44 percent of the students (Figure 47).

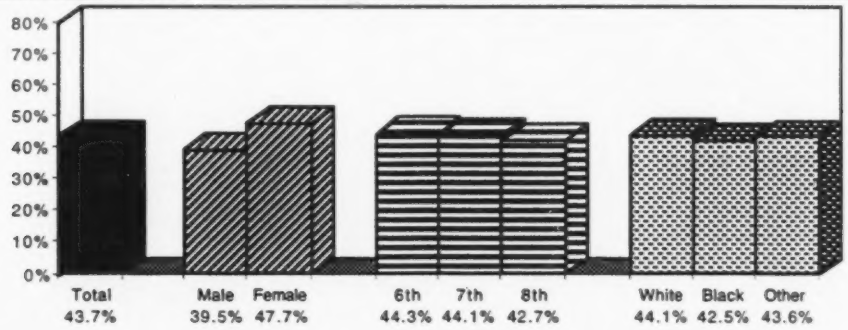

Figure 47. Percentage of students who did any other organized activities such as dance, gymnastics, and swimming

- About 8% more females than males were engaged in some organized activity other than sports.

AIDS Education

AIDS has rapidly become the sixth leading cause of death for young people (National Center for Health Statistics, 1993). Of the 12 million new cases of sexually transmitted diseases reported per year 86 percent are among youth aged 15-29 years (Division of Sexually Transmitted Disease/HIV Prevention, 1992).

Getting AIDS Information in School

About four out of five (79%) of the students said they had been taught in school about AIDS or HIV infection (Figure 48).

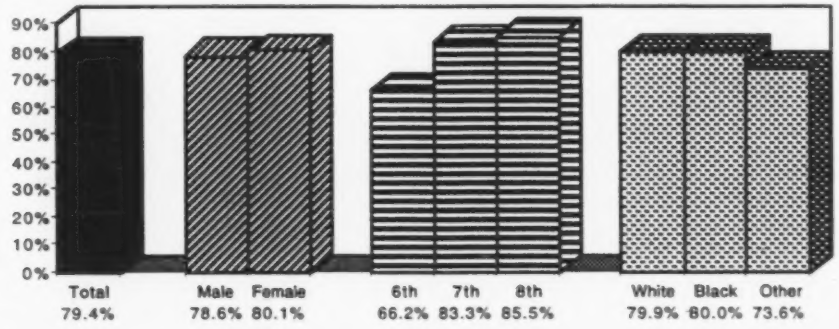

Figure 48. Percentage of North Carolina middle school students who were taught in school about AIDS

- Students in seventh and eighth grades were more likely than sixth graders to have received school instruction regarding AIDS and HIV infection.

- The same percentage of white students and black students received AIDS education in school (80%), but a lower proportion (74%) of other students reported school instruction in AIDS or HIV infection.

Discussing AIDS With Adult Family Members

Students were more likely to learn about AIDS and HIV at school (see Figure 48) than to discuss these issues with parents or other family adults (Figure 49).

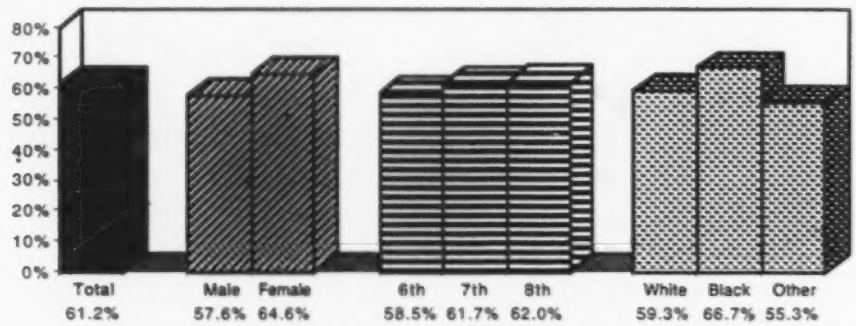

Figure 49. Percentage of North Carolina middle school students who talked with parents or adult family members about AIDS

- Male students were 7% less likely than female students to discuss AIDS with their parents.

- A higher proportion of black students (67%) than white students (60%) and other students (55%) had discussed AIDS and HIV infection with family adults.

- Black females were the most likely (68%) to discuss AIDS with adult family members, and white males were the least likely (55%). Similar percentages of black males (65%) and white females (64%) talked with family adults about AIDS.

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